

## 9. Two New Corals from Taiwan (Formosa).

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Through the new materials<sup>1)</sup> collected by the junior author from Garanbi and Hukikaku, the southernmost and northernmost parts of Taiwan (Formosa) respectively, the total number of genera of reef corals from the sea around the island increased to 27 and that of species to 56; they are enumerated in Yabe and Sugiyama's "Revised Lists of the Reef Corals."<sup>2)</sup>

The reef coral fauna of Taiwan is intermediate in its composition between those of the Japan proper and the Philippines. The genera rich in the former and yet poor in or hitherto unrecorded from the latter are *Caulastraea*\*, *Orbicella*, *Oxyphyllia*, *Astraeopora*\*, *Turbinaria*, *Podabacia* and *Antillophyllia*\*, those marked with an asterisk are not yet found in Taiwan. Of the 41 genera now known from the Philippines, 25 are in common with Taiwan and 21 with Japan proper. 24 of 46 genera known from the South Sea Islands and 18 out of the 31 genera known from the Ogasawara Islands are in common with Taiwan. The North Equatorial Current is no doubt an important controlling agent to the distribution of reef corals.

Of the corals from Taiwan the following two are new; one is a living form and the other is from the Raised coral reef.

### Genus *Pavona* Lamarck.

*Pavona garanbiensis* sp. nov. Figs. 3-5.

Corallum arborescent; branches stout, erect, subcylindrical, apically rounded. Calices roundish polygonal, equidimensional or slightly elongated, crowded at the top of branches; calical fossa deep, circumscribed by rounded colines consisting of raised septocostae, lack proper wall, center of calices 2-4 mm apart. Septa thin, 12-36 in number, subequal, longer and shorter ones in more or less regular alternation, 6-12 reaching small columella at the deep bottom of calicular fossa, free margin and lateral faces megascopically subentire, but finely granulated under magnification; columella 1-2 papillate. Dissepiments present, especially abundant at intercalical areas and forming false dissepimental wall.

Dimensions (in mm): Corallum 470 high, 60-100 broad; branches 50-110 long, 50-60 broad, 20-110 apart, branching angle 30°-50°; corallites 3-4 broad; calicular fossa ca. 0.5 deep.

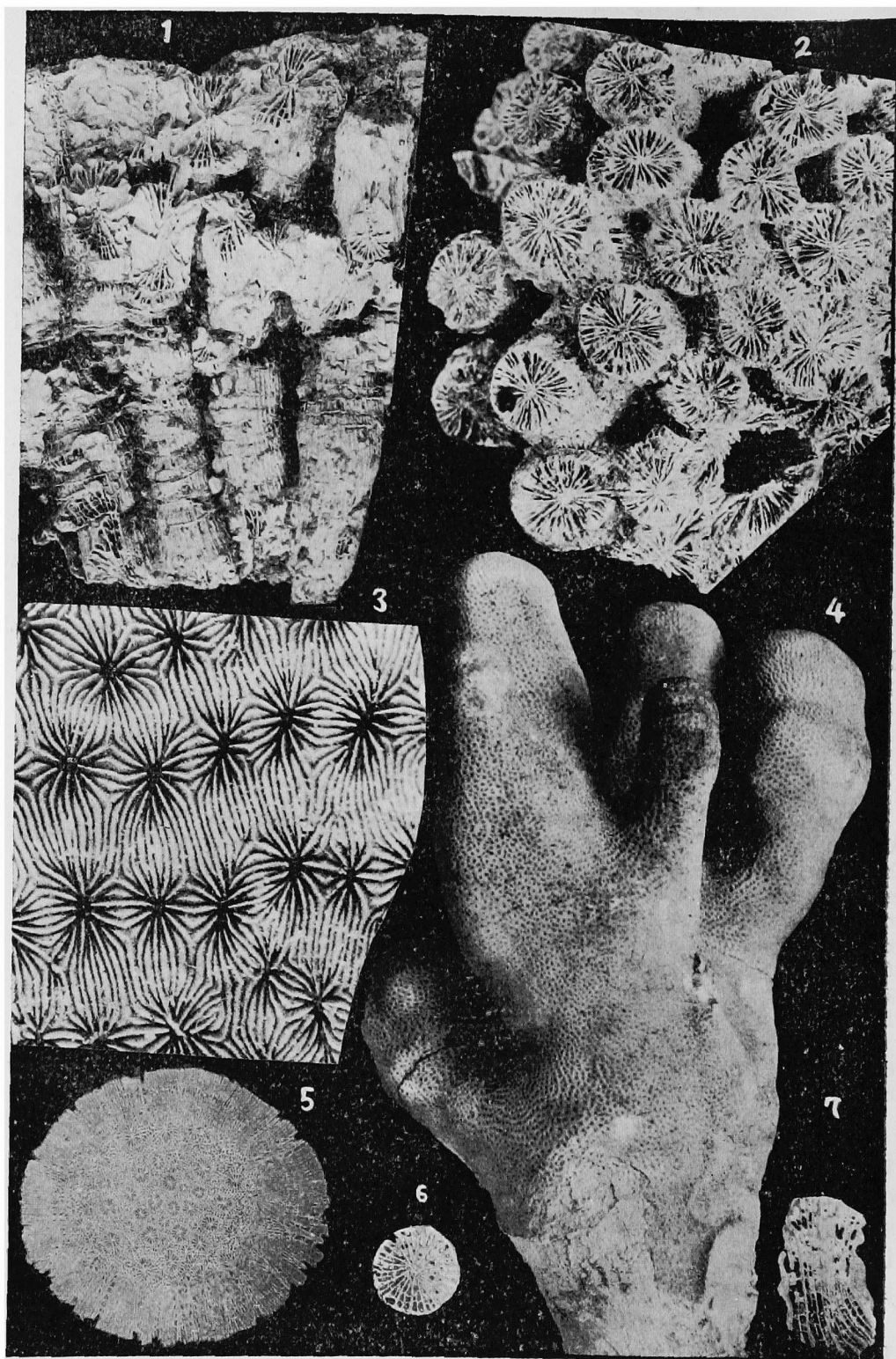
Remarks: In general aspect and especially in the shape of corallum this species resembles *Pavona clavus* Dana, though different in detail of the arrangement and number of septa and in that of columella; it somewhat simulates "*Siderastrea*" *spheroidalis* Ortmann<sup>3)</sup> from Ceylon in the nature of calices, but has a greater number of lamellar septa and is different in growth-habit of corallum.

Locality: Cape Garanbi, Kōsyun-gun, Takao Prefecture, Taiwan; Recent, in 6 m. Inst. Geol. & Pal., Tōhoku Imp. Univ., Reg. No. 56239.

1) Stored in the museum of the Institute of Geology and Palaeontology, Tōhoku Imperial University.

2) Journ. Geol. Soc. Japan, Vol. XLII, 1935.

3) Apparently a *Pavona*.



Figs. 1, 2, 6, 7 (all in nat. size). *Cladorbicella taiwanensis*.  
 Figs. 3 ( $\times 3$ ), 4 ( $1/6$ ), 5 (cross section of a branch, nat. size).  
*Pavona garanbiensis*.

Genus *Cladorbicella*, gen. nov.Genotype: *Cladorbicella taiwanensis*, sp. nov. Monotypic.*Cladorbicella taiwanensis*, sp. nov. Figs. 1, 2, 6, 7.

Corallum bush-shaped, irregularly massive. Corallites cylindrical, subcircular in transverse section, partly free, partly united by exotheca, or being in direct contact and then separated by single wall, nearly straight, subparallel. Wall moderately thick and compact; free outer surface of corallites showing trace of thin epitheca especially in the form of transverse wrinkles at common levels and irregular intervals; exotheca built as in *Orbicella*. Septa 36, in 3 cycles incomplete, alternately long and short, 13 extending to columella, slightly dentate along free margin. Columella finely echinulate, 2 mm long and 1 mm wide, sometimes almost circular. Dissepiments abundant. Multiply by extracalcinal gemmation.

Dimensions (in mm): Corallum 750 high, 130 and 80 in longer and shorter diameters respectively; corallites 30-50 long, 16 in maximum diameter, up to 6 mm apart.

Remarks: In that part of corallum where corallites are bounded together by exotheca, this species closely resembles *Orbicella* Dana; but in none of the species of this genus do corallum attain bushy growth-habit. In this feature the former is very similar to *Cladocora caespitosa* Milne Edwards and Haime, the genotype of *Cladocora* Ehrenberg, but differs from it by more nearly parallel arrangement of corallites which are not seldom bund together by exotheca, or are at places in direct contact and separated by single wall. Furthermore *Cladocora* possesses typical pali and broader columella. This present species exhibits features intermediate between *Orbicella* and *Cladocora*, and may represent a new type.

Locality: Kaikô, Kôsyun-gun, Takao Prefecture, Taiwan; Raised coral reef. Inst. Geol. & Pal., Tôhoku Imp. Univ., Reg. No. 56238.